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WASHINGTON, DC 20006

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| EXAMINER |
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PRABHAKHER, PRITHAM DAVID

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| ART UNIT | PAPER NUMBER |
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2622

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|----------------------------------------|------------|---------------|
| 3 MONTHS | 03/28/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/642,639

Applicant(s)

TOBA, AKIRA

Examiner

Pritham Prabhakher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 2 is/are allowed.
- 6) ☒ Claim(s) 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/06/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (US Patent No.: 6661454B1) and further in view of Arai et al. (US Patent No.: 5576758).

Regarding **Claim 3**, Hwang et al. teach of a digital camera comprising a plurality of interfaces (30 and 56) for connecting thereto a plurality of kinds of recording media different in size (Memory cards 28 (8MB) and 58 (4MB) in **Figure 4 and Column 6, Lines 11-22. Also Figure 6**), a file recording device for recording an image file on the recording medium (The camera from Figure 4 records the image files on the recording mediums), and a display for showing thereon various items of information (**Figure 5**), the digital camera wherein the file recording device comprises:

an interface selector for selecting an interface connected to the recording medium (User input 48 can be used to select memory card 28 or 58, **See Figure 16**);
and

a file recorder for recording the image file on the recording medium connected to the selected interface (Depending on the selected interface, the camera microprocessor

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36 directs the image file to be recorded in either the first or second memory card,

Column 5, Lines 57 et seq.).

However, although Hwang et al. teach that the plurality of recording media are in different sizes, there is no specific mentioning of the different sizes being expressed in terms of different cluster sizes. Arai et al. teach of configuring a memory card depending on the settings chosen to have different cluster sizes representing a packet(sector),

Column 3, Lines 30 et seq. of Arai et al. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate into a memory card the ability to have different cluster sizes in a packet because the size of an image varies with the picture mode/quality, **Column 1, Lines 30 et seq. of Arai et al.**

Also, although Hwang et al. teach of a plurality of kinds of recording media connected to the plurality of interfaces (as taught above), and an interface selector for selecting an interface connected to the recording medium, the reference of Hwang et al. does not teach that the size of the memory card is viewed/obtained in terms of cluster size. Arai et al. teach that by selecting F, N or E on the interface 9 in Figure 6, an appropriate cluster size is sectioned/obtained for a memory card, **Column 3, Lines 30-47 of Arai et al.** It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate into a memory card the ability to have different cluster sizes in a packet because the size of an image varies with the picture mode/quality, **Column 1, Lines 30 et seq. of Arai et al.**

Also, although Hwang et al. and Arai et al. do not explicitly disclose that the recording medium with the larger cluster size be used to record the file greater in size,

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official notice is taken saying that it would have been obvious to one of ordinary skill in the art at the time of the invention to fit a larger file in the memory card with a larger cluster size because this recordable medium has more recording space.

Allowable Subject Matter

Claims 1 and 2 are allowed.

The following is an examiner's statement of reasons for allowance:

*In regard to independent **Claim 1**, the closest prior art fails to teach or reasonably suggest "A recording medium management device for managing a recording medium with cluster units each of which comprises a plurality of sectors, the recording medium management device comprising:*

a graphical user interface displayer for displaying on a screen a graphical user interface having a first display portion for inputting priority ratio of high speed in access to the recording medium to recordable capacity of the recording medium in formatting the recording medium, a second display portion for displaying a cluster size representing the number of sectors providing one cluster, and a third display portion for displaying the number of data files recordable to the recording medium;

a cluster size determiner/displayer for determining the cluster size in response to the user's inputting manipulation to the first display portion of the graphical user interface shown on the screen, and displaying the determined cluster size on the second display portion of the graphical user interface;

a calculator/displayer for calculating the number of data files recordable to the recording medium in response to the determined cluster size, and displaying the calculated number of the files on the third display portion of the graphical user interface; and

a formatter for formatting the recording medium with the cluster size displayed on the second display portion of the graphical user interface in response to the user's determining manipulation.

The following are the closest references found:

Arai et al. (US Patent No.: 5576758) disclose, "A digital electric still camera that is provided having a CCD image sensor and a memory card for recording digital image data of picture frames photographed by the CCD image sensor. The image data is compressed before being recorded, and the data compression rate is selectable by operating a picture mode button. The selected data compression rate is recorded along with the image data during photographing. When reproducing a picture frame on a monitor TV, the data compression rate is read together with the image data, so that the image data is expanded in correspondence to the data compression rate, and the data compression rate is displayed on a display device, such as a LCD panel provided on the digital electric still camera, in association with the serial number of the picture frame".

Kanai (US Patent No.: 6467016B1) disclose, "A control means 24A that reads an unrecorded area of a recording medium 25 in advance, and stores the read unrecorded area in a stack of a RAM 11. The unrecorded area is stored in the stack of

the RAM 11 by being pushed onto the bottom of a stack pointer. When new data is recorded on the recording medium 25, recording is executed in order from the top of the stack pointer. Accordingly, information which continuously progresses in a time series manner can be recorded on the recording medium 25 without lack of the information which continuously progresses, and it is possible to reduce the time required to calculate and display the remaining recording time".

Isshiki et al. (US Patent No.: 6785745B2) disclose, "A recording/playback apparatus includes an upper control unit which transmits a composite command, which includes a real processing command and a virtual command, to a disk device. The disk device performs a process until a point of time when an operation cannot be continued unless the virtual command is changed to the real processing command to be operated beforehand. Instead of standing by after the real processing command is completed, the disk device can voluntarily operate beforehand in response to the virtual command, while selecting an optimum seek speed or disk rotation speed. The recording/playback apparatus can thus maintain the continuity of continuous data and perform an optimum operation in accordance with an expected performance while switching speeds of seek and disk rotation in detail".

Moronaga et al. (US Patent No.: 5226145) disclose, "A storage management system for a memory card, which has a storage area divided into a plurality of storage units that have a predetermined storage capacity, manages storage of information on a storage unit basis. The storage area includes a MAT for indicating a relationship of ones of the storage units in which a group of mutually associated information is to be stored

in the form of a packet, and directory for indicating one of the storage units in which a beginning portion of the packet is to be stored. Stored in one of the storage units is, as a header, management data representative of at least either one of the number of occupied ones of the storage units and the number of idle ones thereof, the header including an error check code for use in detecting an error of the management data”.

*In regard to independent **Claim 2**, the closest prior art fails to teach or reasonably suggest, “A digital camera comprising a recording medium management device for managing recording/playback of a recording medium with cluster units each of which comprises a plurality of sectors and a display for showing various items of information, the digital camera wherein the recording medium management device comprises:*

a graphical user interface displayer for displaying on a display a graphical user interface having a first display portion for inputting priority ratio of high speed in access to the recording medium to recordable capacity of the recording medium in formatting the recording medium, a second display portion for displaying a cluster size representing the number of sectors providing one cluster, and a third display portion for displaying the number of images recordable to the recording medium;

a cluster size determiner/displayer for determining the cluster size in response to the user's inputting manipulation to the first display portion of the graphical user interface shown on the display, and displaying the determined cluster size on the second display portion of the graphical user interface;

a calculator/displayer for calculating the number of images recordable to the recording medium in response to the determined cluster size, and displaying the calculated number of the images on the third display portion of the graphical user interface; and

a formatter for formatting the recording medium with the cluster size displayed on the second display portion of the graphical user interface in response to the user's determining manipulation.

The following are the closest references found:

Arai et al. (US Patent No.: 5576758) disclose, "A digital electric still camera that is provided having a CCD image sensor and a memory card for recording digital image data of picture frames photographed by the CCD image sensor. The image data is compressed before being recorded, and the data compression rate is selectable by operating a picture mode button. The selected data compression rate is recorded along with the image data during photographing. When reproducing a picture frame on a monitor TV, the data compression rate is read together with the image data, so that the image data is expanded in correspondence to the data compression rate, and the data compression rate is displayed on a display device, such as a LCD panel provided on the digital electric still camera, in association with the serial number of the picture frame".

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Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pritham Prabhakher whose telephone number is 571-270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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